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Cc: [BAYUK Dana](#)
Subject: RE: Gasco Source Control Interim Design Report
Date: 11/19/2009 05:01 PM

All,

DEQ has received the Interim Design Report (IDR) for the Gasco/Siltronic groundwater source control measure from NW Natural. The IDR is a significant uplands source control document for the Gasco site. Copies have been forwarded to EPA for review and comment and are available for review by other members of the government team.

Please contact Dana Bayuk for an electronic copy (CD) of the IDR. Dana can be reached at bayuk.dana@deq.state.or.us or 503-229-5543. Dana is the point of contact for project questions, and government team review comments should be submitted to him. DEQ requests that review comments be provided by December 22, 2009.

Below is an overview of the IDR provided by Dana.

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Matt

This e-mail is to inform you that during my vacation NW Natural submitted the Source Control Interim Design Report (IDR) for the property owned by NW natural (NW Natural Property [aka, Gasco Site]) and the northern portion of the Siltronic Corporation (Siltronic) owned property (Siltronic Property).

BACKGROUND

Based on work completed by NW Natural and Siltronic, DEQ previously determined the shoreline of the NW Natural Property and the northern portion of the Siltronic Property are high priorities for source control. The portion of the shoreline identified as the highest priority for groundwater source control (Segment 1) extends from near the south side of the FARM leasehold on the NW Natural Property, to upstream of the former effluent pond overflow area on the Siltronic Property. This segment coincides with the heaviest contamination identified near the river associated with NW Natural's historic manufactured gas plant (MGP) operations including, dense non-aqueous phase liquids (DNAPLs), impacted riverbank soils, and contaminated groundwater. It also includes the portion of the Siltronic Property where groundwater contamination caused by releases volatile organic compounds (VOCs) from a solvent underground storage tank system formerly used by Siltronic, has commingled with MGP-related DNAPL and dissolved phase constituents.

The segment of NW Natural's shoreline between the south side of the FARM leasehold and NW Natural's downstream property line with US Moorings (Segment 2) is considered a high priority for source control primarily due to the presence and concentrations of MGP constituents, particularly cyanide, in riverbank soils and groundwater. A third shoreline segment (Segment 3) extends from upstream of Segment 1 (i.e., upstream of the former effluent ponds on the Siltronic Property) to the southern Siltronic Property line. A source control evaluation of Segment 3 is ongoing.

Consistent with the terms of an agreement and order with DEQ, NW Natural completed a Groundwater/DNAPL Focused Feasibility Study (see footnote) that evaluates and recommends source control measures (SCMs) alternatives along shoreline segments 1 and 2 to mitigate contamination migrating to the Willamette River including:

- * MGP DNAPL in the fill water-bearing zone (WBZ) and alluvial WBZ; and
- * Groundwater in the fill and alluvial WBZs contaminated by dissolved MGP constituents and VOCs.

Subject to conditions and comments, DEQ approved NW Natural's recommended SCMs alternative that combined a hydraulic control/containment (HC&C) system along the shoreline of the NW Natural

Property and the northern portion of the Siltronic Property, with a vertical barrier in the southern portion of the NW Natural Property.

NW Natural is in the process of designing SCMs for shoreline Segment 1 and Segment 2. The SCMs are being designed to mitigate migration to the river of MPG DNAPL along the southern portion of the NW Natural Property (vertical barrier); and contaminated groundwater along the shoreline of the NW Natural Property and northern portion of the Siltronic Property (HC&C system comprised of a series of extraction wells).

The IDR represents the initial SCMs design document for the vertical barrier and HC&C system and includes the findings and results of design support studies completed by NW Natural since the Groundwater/DNAPL FFS was submitted (groundwater treatment system pilot; vibration study; DNAPL movement/mobility evaluation).

DOCUMENT REVIEW

The IDR is a milestone uplands source control document for the NW Natural and Siltronic properties. Copies have been sent to EPA for review and comment. Please notify the other Portland Harbor government team members the document has been received and is available for review.

To meet the current project schedule stakeholders review of the IDR should be completed no later than by the end of the day Tuesday December 22nd.

Let me know if you have questions or need additional information regarding this e-mail.

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